



**CASTILLO COPPER  
LIMITED**

ASX Release

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30 July 2018

**CASTILLO COPPER  
LIMITED**  
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For the latest news:

[www.castillocopper.com](http://www.castillocopper.com)

**Directors / Officers:**

Peter Meagher  
Alan Armstrong  
Peter Smith

**Issued Capital:**

580.1 million shares  
84.5 million options

**ASX Symbol:**

CCZ

# JUNE QUARTERLY ACTIVITIES REPORT

## HIGHLIGHTS

- Phase II drilling targets high-grade supergene ore and massive sulphides at Cangai
- Phase I assays confirm widespread mineralisation at Cangai
- Castillo looks to build on the Cangai resource with new cobalt targets
- Targeting Broken Hill to be a substantial cobalt project
- Himalaya Formation confirmed at six highly prospective targets for cobalt Broken Hill

Castillo Copper Limited (“**CCZ**” or “**The Company**”) is pleased to present its latest quarterly report for the period 1 April to 30 June 2018.

There were significant operational activities during the period, focused mostly on the NSW projects, which are discussed in more detail below.

## CANGAI COPPER MINE: PHASE II DRILLING CAMPAIGN

During the quarter, CCZ applied and received clearance from the NSW mining regulator to progress the Phase II drilling campaign at Cangai Copper Mine (CCM). This will build on the Phase I program and should significantly broaden the geology team’s understanding of mineralisation apparent within the system.

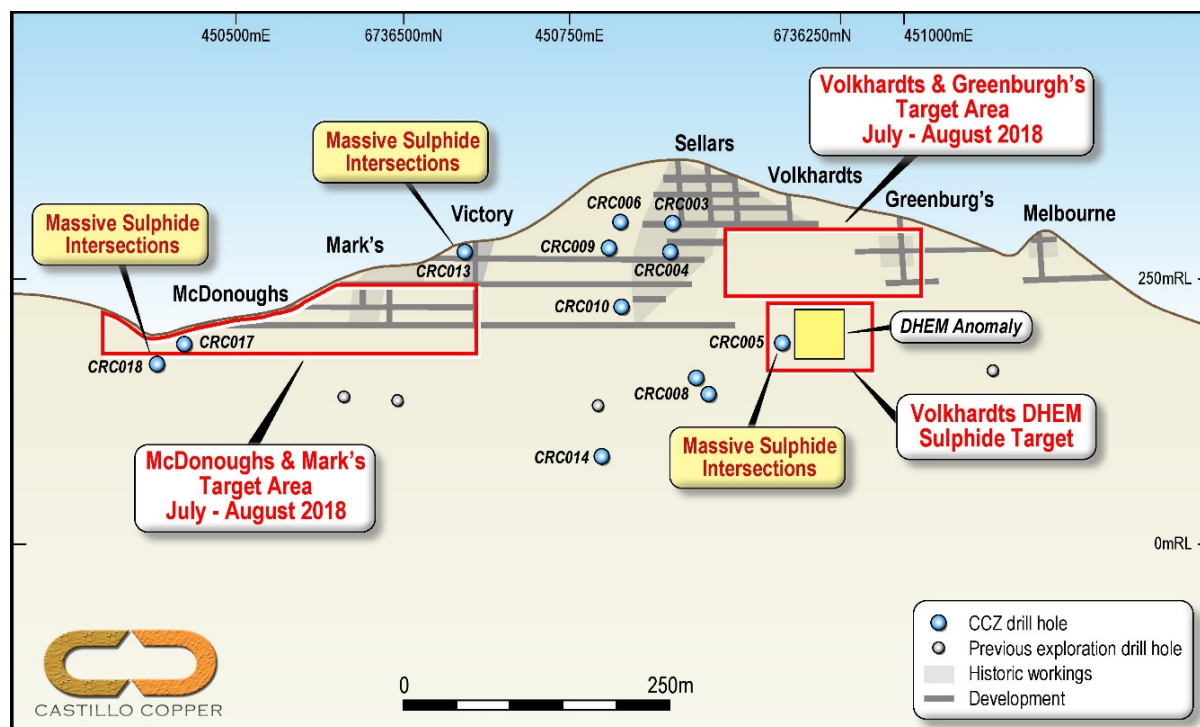
### Approval

On 18 June 2018, the NSW mining regulator approved the Phase II RC drilling campaign at CCM, which comprises 39 drill-holes.

As can be seen from Figure 1, there are three primary zones along the line of lode the geology team are planning to drill.

Key targets areas are supergene ore near the legacy workings and where massive sulphides were identified during the Phase I program. Once this second drilling campaign concludes, the geology team anticipates the resource size may potentially be materially expanded.

**FIGURE 1: TARGET AREAS FOR PHASE II DRILLING CAMPAIGN<sup>1</sup>**



Source: CCZ geology team

### Key targets<sup>1</sup>

The geology team put a significant amount of work into planning the Phase II drilling campaign, with a core objective to build a greater understanding of the underlying mineralised system. The reasons for targeting three specific areas, around known lodes, is summarised in more detail below:

- **Greenburgs:** This is a blind lens discovered along strike to the east of the Sellars and Volkhardts workings (Figure 2). According to legacy reports (Carne 1908), Greenburgs was reputed to be the largest ore lens discovered at CCM until it was replaced by a horizontal fault.

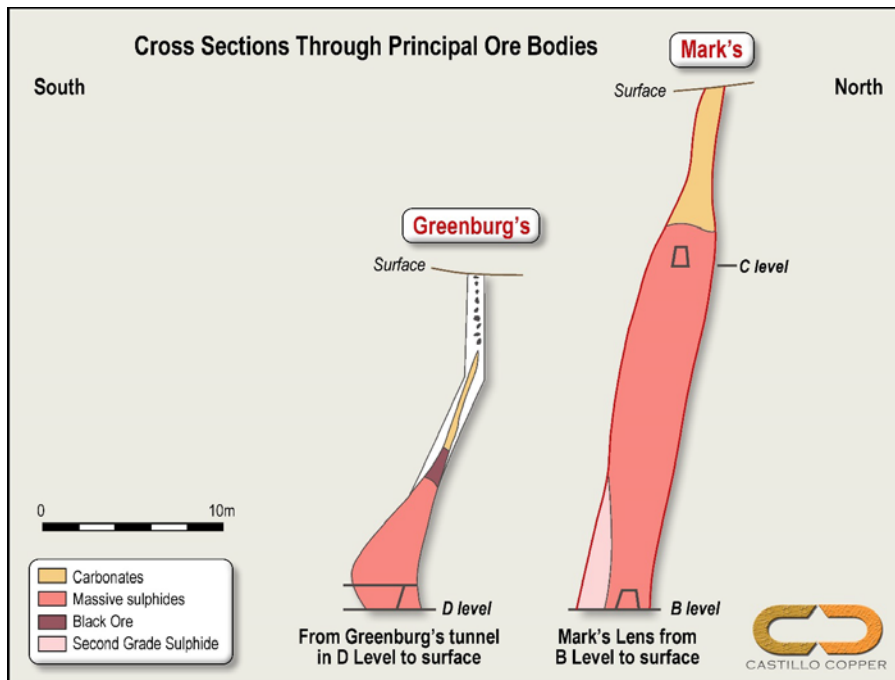
With only limited exploration undertaken, the geology team believe additional ore lens remains undiscovered and, hence, qualifies as a shallow target of interest for the Phase II campaign.

- **Volkhardts:** This is immediately to the east of the central Sellars workings area and where the main shear splits into two parallel shear zones (10m apart). This main shear splitting resulted in the grade in the original mine dropping below the 10% Cu threshold desired in the 1900's.

The geology team believe current economic grades and widths exist between the two parallel shears which make it a shallow target for the upcoming Phase II drilling program. Moreover, beneath the Volkhardts workings is where a DHEM target has been identified from the Phase I drilling campaign.

- **Marks:** This was the principal ore lens on the western side of the main Sellars workings (Figure 2), which is why it is a target. However, mining operations ceased when the grade dropped below 10% Cu. According to legacy mine records, the width of the ore body remained consistent, although at depth it comprised mainly second grade ore (i.e. less than 10% Cu).
- **McDonoughs:** This was the last ore lens found during the A-level adit development at the western end of the mine. Limited information is available on this ore lens, although it was in production until the mines closure, explaining why it is an area of interest for the geology team.

**FIGURE 2: CROSS SECTIONS OF KEY ORE BODIES<sup>1</sup>**



Source: CCZ geology team

Subsequent to the end of the quarter on, 13 July 2018, CCZ was delighted to report that all necessary preparation work for the second drilling program at CCM has been finalised, enabling the campaign to get underway (Figure 3).

**FIGURE 3: DRILLING RIG AT CANGAI COPPER MINE<sup>2</sup>**



Location: Volkhardts E Level Adit Dump  
Source: CCZ geology team

## CCM: PHASE I DRILLING CAMPAIGN

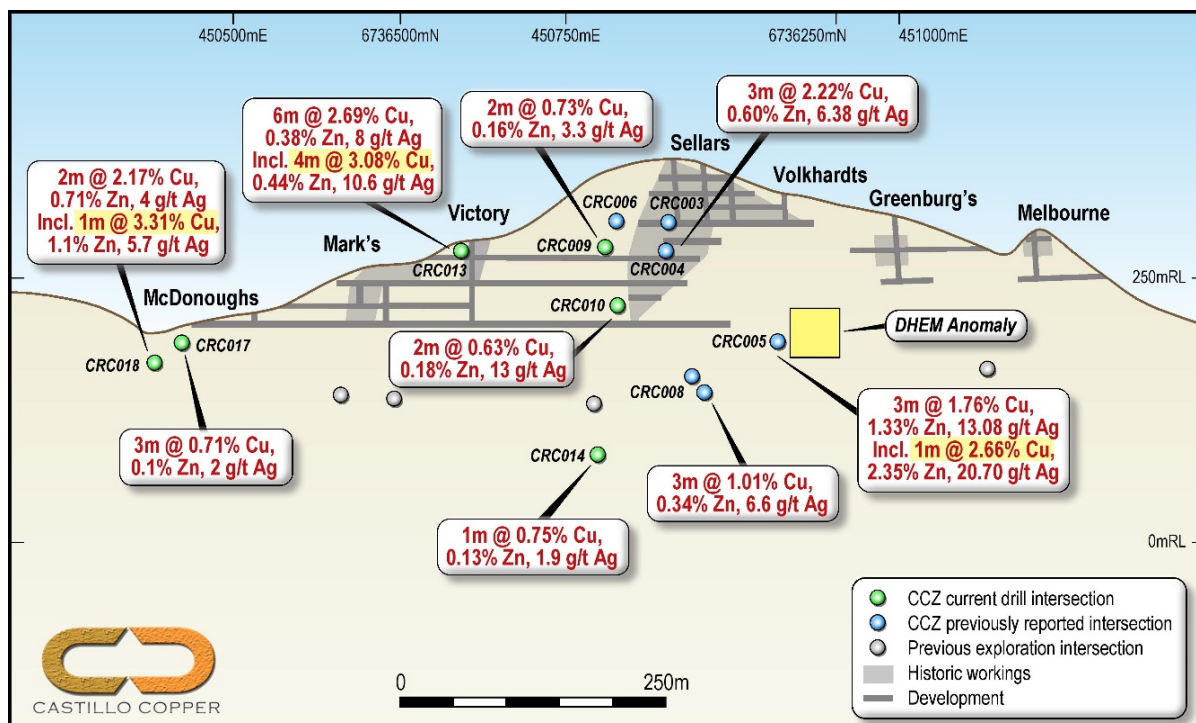
On 17 May 2018, CCZ advised it had received assay results from the final nine holes of the Phase I drilling campaign – targeting deeper sulphide mineralisation – confirmed high-grade copper intersections greater than 3% off the line of lode.

Notably, new mineralisation outside the JORC modelled envelope was discovered at CRC013 and CRC016-18 drill-holes, while the DHEM identified an anomaly near CRC005 drill-hole (Figure 4 below).

Of particular interest is the result from drill-hole CRC018, which included a massive sulphide intersection reading – 1m @ 3.31% Cu, 1.11% Zn & 5.7 g/t Ag. The significance of this intersection is that its potentially a splay off the main line of lode that clearly warrants further investigation during the Phase II drilling campaign.

In addition, the DHEM anomaly, which has been discovered immediately along strike to the east of CRC005 drill-hole, will be investigated further in the upcoming drilling campaign. The geology team believe it comprises massive sulphides with high-grade copper-zinc-silver mineralisation, given CRC005 had an intersection of 4m @ 1.54% Cu, 1.17% Zn and 11.5 g/t Ag.

**FIGURE 4: LONG SECTION OF CANGAI COPPER MINE<sup>3</sup>**



Source: CCZ Geology team

### High-grade copper intersections<sup>3</sup>

Assays confirmed mineralisation was discovered in seven out of the final nine drill-holes, with several high-grade copper intersections recorded (Table 1). Notably, the best intersection was 6m @ 2.69% Cu, 0.39% Zn & 9.2g/t Ag which included 4m @ 3.08% Cu, 0.44% Zn & 10.6g/t. This builds on assays for the first nine drill-holes with the best 3m @ 2.22% Cu, 0.60% Zn & 6.4 g/t Ag.

**TABLE 1: BEST INTERSECTIONS FROM CRC010-18 DRILL-HOLES<sup>3</sup>**

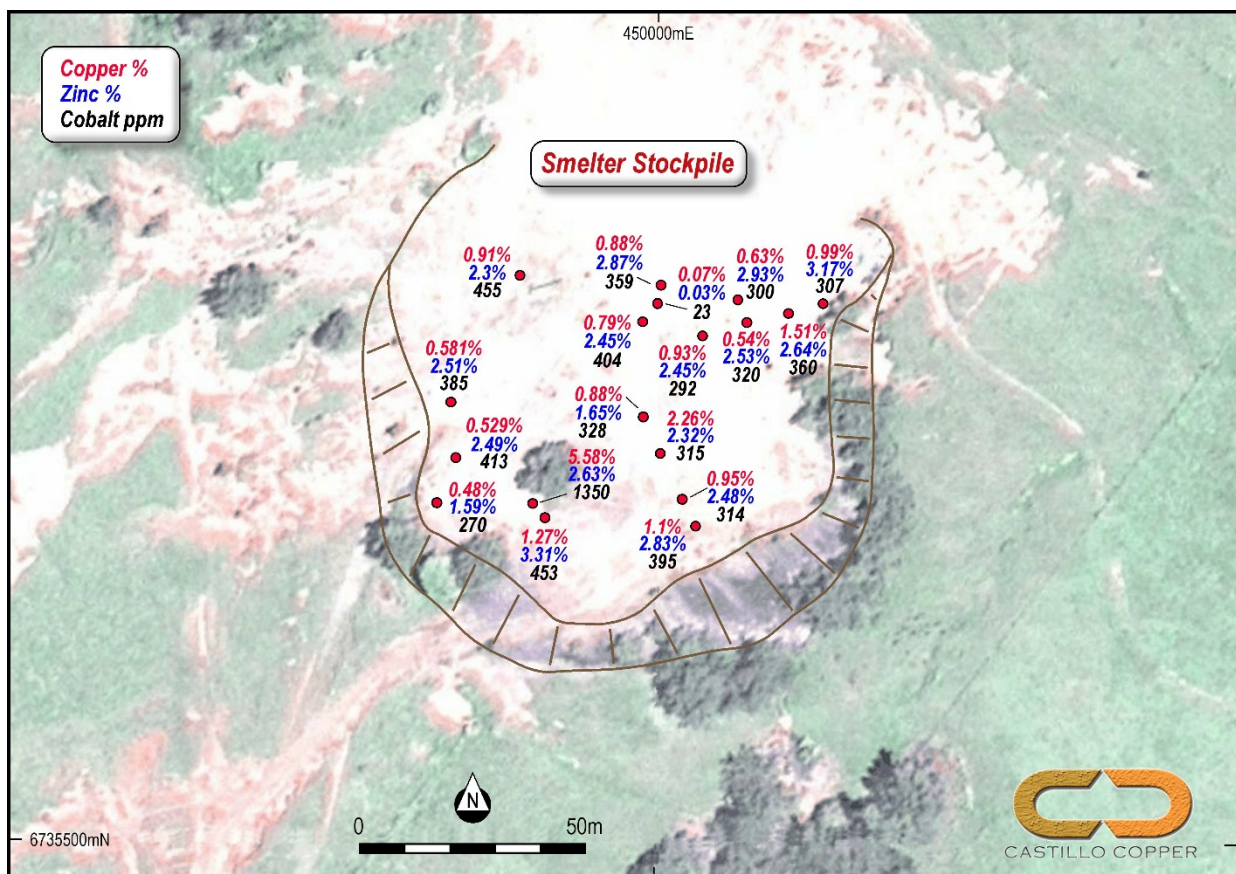
Hole ID	Width	From	Intersection Assays	Mineralisation Summary
CRC010	2m	145m	0.63% Cu, 0.18% Zn & 13.1g Ag	Quartz veins with pyrite & chalcopyrite
CRC012	2m	9m	0.3% Cu, 0.08% Zn & 6.2g Ag	Malachite on fracture surfaces
CRC013	6m	1m	2.69% Cu, 0.39% Zn & 9.2g Ag	Malachite on fracture surfaces, pyrite & chalcopyrite in grey dacite
inc	4m	2m	3.08% Cu, 0.44% Zn & 10.6g Ag	Semi-massive pyrite & chalcopyrite in grey dacite
CRC014	1m	232m	0.75% Cu, 0.13% Zn & 1.9g Ag	Quartz veins with pyrite & chalcopyrite
CRC016	1m	0m	1.14% Cu, 0.18% Zn & 7.9g Ag	Malachite on fracture surfaces
CRC017	3m	4m	0.71% Cu, 0.1% Zn & 2.2g Ag	Malachite on fracture surfaces
CRC018	1m	13m	1.43% Cu, 0.17% Zn & 2.3g Ag	Malachite on fracture surfaces
CRC018	2m	39m	2.17% Cu, 0.71% Zn & 3.7g Ag	Massive sulphides, pyrite, chalcopyrite & minor pyrrhotite
inc	1m	39m	3.31% Cu, 1.11% Zn & 5.7g Ag	Massive sulphides, pyrite, chalcopyrite & minor pyrrhotite

Source: CCZ geology team

**CCM: LEGACY STOCKPILES**

A strategic objective of the Board is monetising legacy stockpiles along the line of lode and at Smelter Creek. Considerable work was carried out during the quarter with and some key assay results for Smelter Creek being finalised that confirm significant mineralisation (Figure 5). The best results from the samples, which was from channel trenching, were up to 5.58% Cu, 3.31% Zn and 1,350ppm Co.

**FIGURE 5: SUMMARY ASSAY RESULTS FOR SMELTER CREEK STOCKPILE<sup>1</sup>**



Source: CCZ geology team and ALS

## Smelter Creek stockpile: assay results

Assay results from initial channel rock-chip sampling at the legacy Smelter Creek stockpile were encouraging with up to 1.25% Cu, 2.57% Zn and 357ppm Co (Table 2). While further work needs to be undertaken, the Board remains committed to creating value for shareholders by monetising the stockpiles.

**TABLE 2: ASSAYS – SMELTER CREEK STOCKPILE SAMPLING IS AS FOLLOWS<sup>4</sup>**

Sample	East (MGA56)	North (MGA56)	Copper (%)	Cobalt (ppm)	Zinc (%)	Silver (ppm)
1012521	450010E	6735565N	0.995%	357	2.30%	2
1012522	459995E	6735536N	1.04%	286	2.26%	2.2
1012523	459977E	6735557N	1.25%	319	2.57%	2.7

Source: ALS

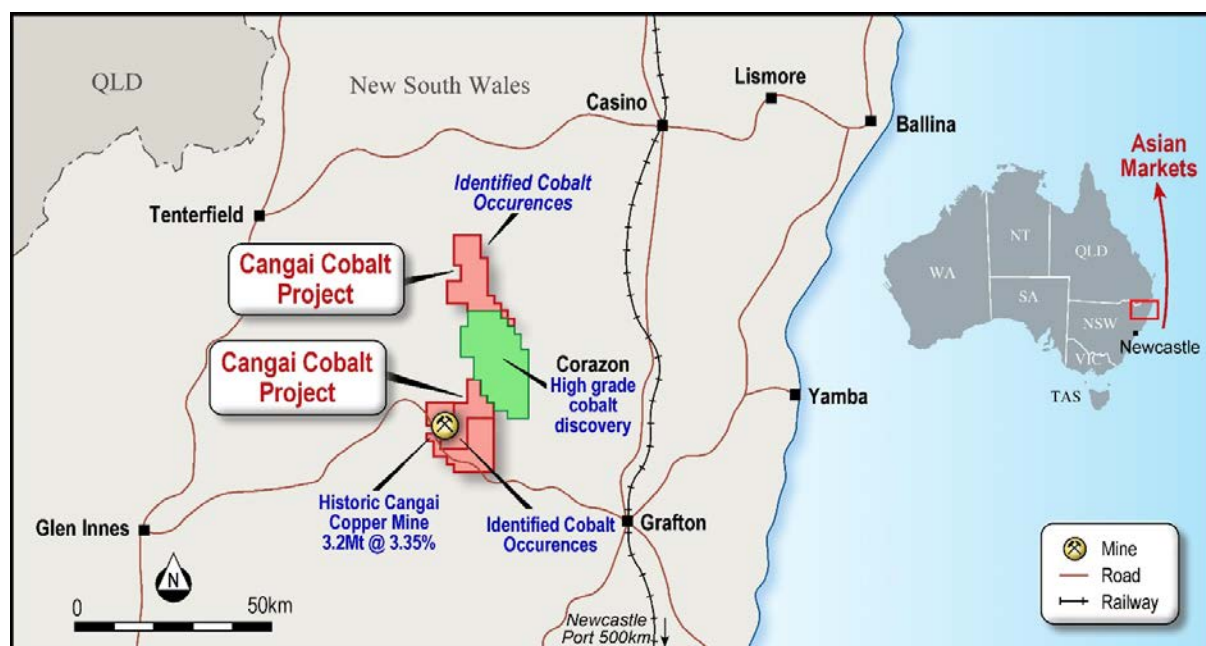
## CANGAI COBALT PROJECT

During the quarter, the Board held an onsite strategic review at CCM. The strategy meeting included reviewing and discussing both historic deposits and historical data as well as forming a proactive forward agenda to elevate exploration activities for cobalt mineralisation across the Cangai Cobalt/Copper and Broken Hill projects.

### Exploration upside

A key finding from an updated desktop review is the material exploration upside for cobalt mineralisation across both Cangai Cobalt/Copper projects – previously the focus was on the former area given it is contiguous to CZN's tenure (Figure 6).

**FIGURE 6: CANGAI COBALT/COPPER RELATIVE TO CZN; COBALT OCCURRENCES<sup>4</sup>**



Source: CCZ geology team

The rationale for arguing both Cangai Cobalt/Copper are prospective for cobalt originates from interpreting results from CZN's Mt Gilmore project<sup>5</sup>, which includes the historic Cobalt Ridge deposit. A drilling campaign in late 2016 confirmed Cobalt Ridge is a high-grade cobalt dominant deposit, with broad shallow mineralisation. A prominent fact is that CZN has grown its cobalt footprint from an initial historic surface occurrence to several targets, which extrapolating, suggests the entire region is prospective for high-grade cobalt mineralisation.

## Geochemical analysis proving effective

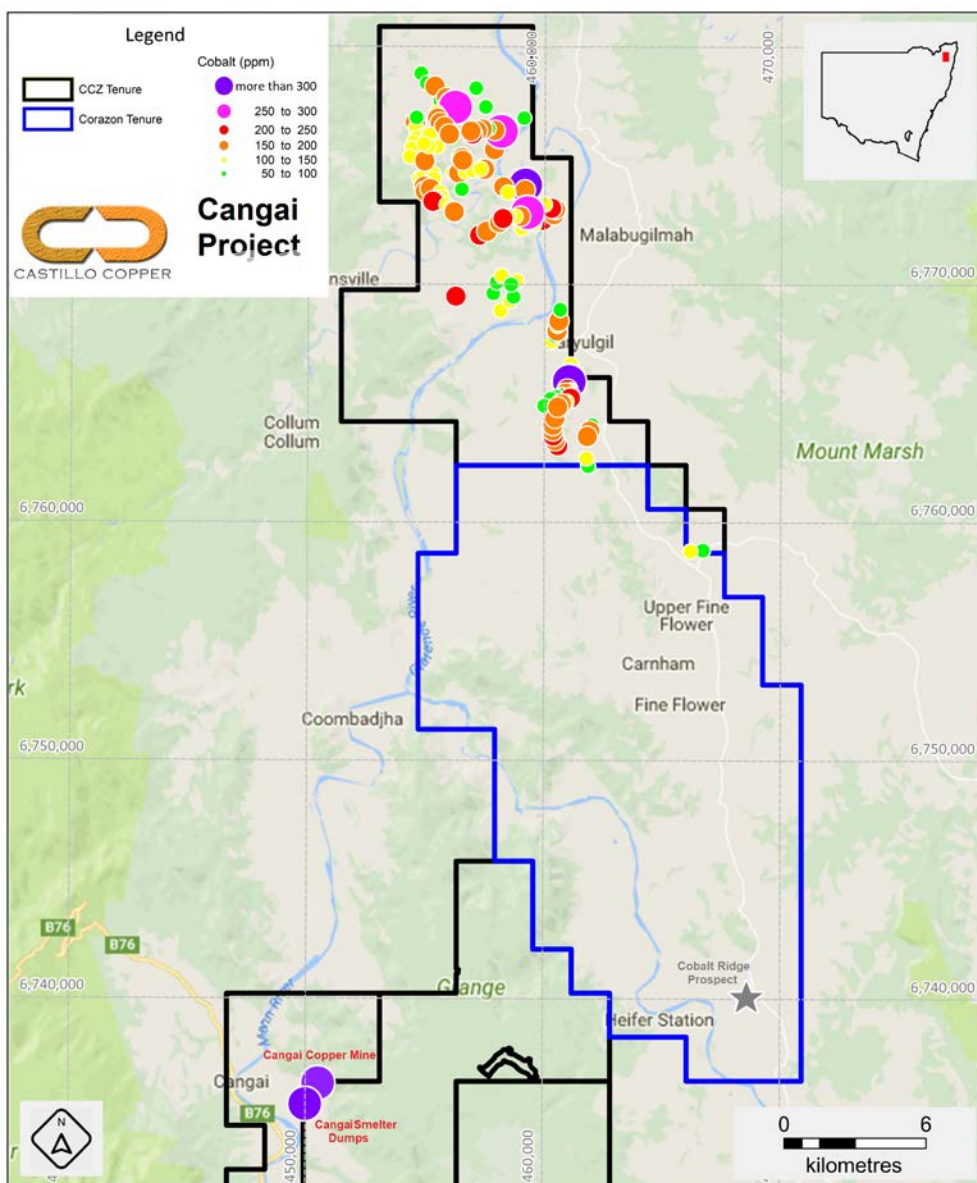
The desktop report highlighted that within the Cangai Cobalt project there are extensive anomalous zones where historic soil sampling has taken place. A closer review of the legacy geochemistry data shows there are samples with readings >300ppm in two locations<sup>4</sup>, which surpasses results reported by CZN<sup>5</sup>.

With high cobalt soil anomalies in the Cangai Cobalt project, CCZ is solidly positioned to expedite exploring these zones. By employing a similar strategy deployed by CZN<sup>5</sup> at Cobalt Ridge, CCZ intends to expand the geochemical soil sampling across the combined Cangai Cobalt/Copper tenure to identify incremental cobalt targets and extend current focus areas.

## Undiscovered cobalt potential

The Cangai Copper project, where the flagship CCM is located, remains largely under explored for cobalt (Figure 7). However, historic mining activities provide concrete evidence for the presence of cobalt. Legacy mining reports document the presence of cobalite, which resulted in its inclusion in the Mineral Resource estimate<sup>4</sup>.

**FIGURE 7: COBALT GEOCHEMISTRY AT CANGAI PROJECT<sup>4</sup>**



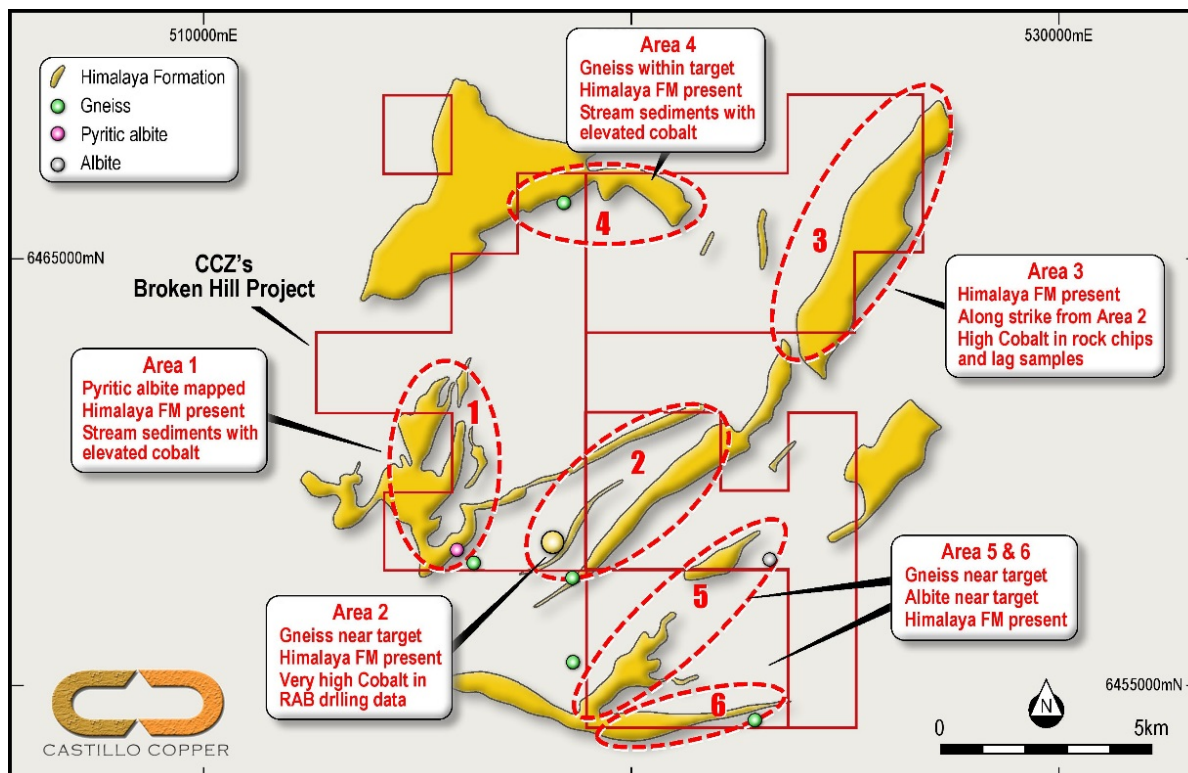
Source: CCZ geology team

## BROKEN HILL PROJECT: SIX PRIORITY AREAS<sup>6</sup>

On 2 May 2018, CCZ announced its geology team had identified six highly prospective sites for cobalt mineralisation within the Broken Hill project that have the Himalaya Formation present – this is the same geological sequence apparent at Cobalt Blue’s (ASX: COB) Thackaringa deposit.<sup>1</sup>

The geology team undertook crucial reconnaissance mapping and geochemical work on-site at the Broken Hill project, so the inaugural drilling program can be designed as soon as practical. The team reviewed legacy drilling/geochemistry data, geophysics, geological observations and regional maps to identify six priority target areas highly prospective for cobalt mineralisation (Figure 8).

**FIGURE 8: PRIORITY COBALT TARGETS RELATIVE TO HIMALAYA FORMATION<sup>6</sup>**



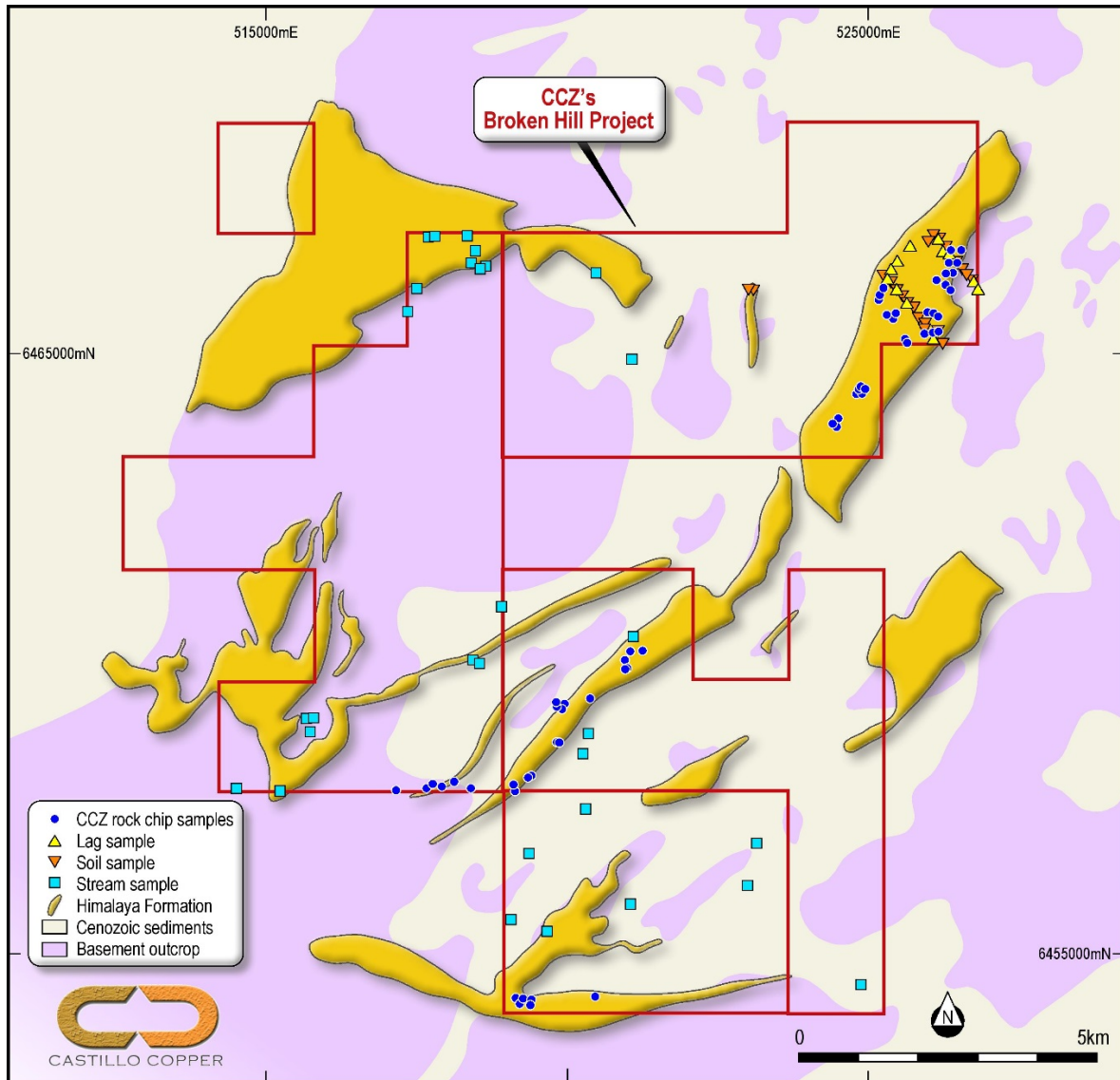
Source: CCZ geology team with the Himalaya Formation data extracted from the NSW Geoscience Datawarehouse



## Numerous cobalt surface readings

Over the years, the Broken Hill project has been explored primarily for traditional regional minerals (Zn-Pb-Ag-Cu), with most cobalt surface readings secondary. However, on a cumulative basis, cobalt readings have been recorded right across the tenure (Figure 9), which includes recent rock chip samples taken by CCZ's geology team. However, the majority of the tenure, which is circa 125m<sup>2</sup> in total, remains clearly under-explored which delivers upside potential.

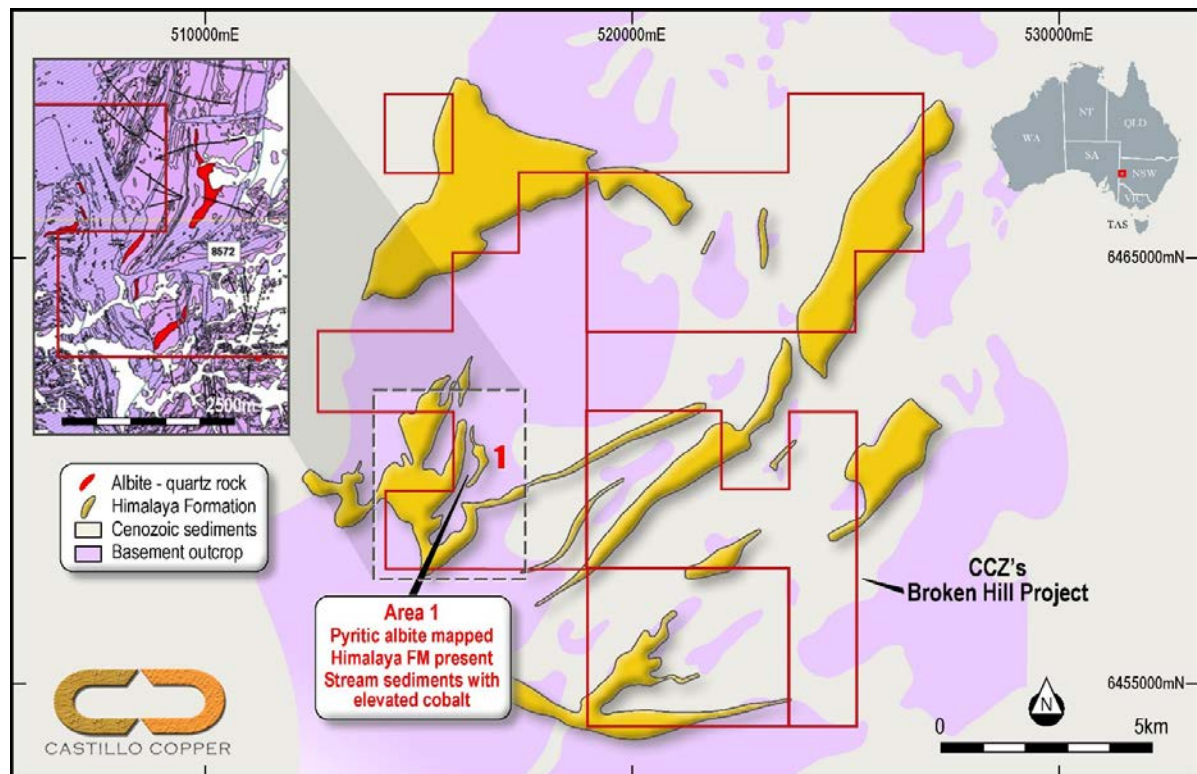
**FIGURE 9: HISTORIC & CCZ'S CURRENT COBALT SURFACE READINGS<sup>6</sup>**



Source: CCZ geology team & Geological Survey NSW

Importantly, highlighting another nexus to the Thackaringa project, there are occurrences of the PI2 unit, with pyrite mineralisation, at CCZ's Broken Hill tenure according to Geological Survey NSW (Figure 10). Further, these occurrences align with the historic geochemical analysis which demonstrated elevated cobalt readings within the Himalaya Formation.

**FIGURE 10: PI2 UNIT WITHIN THE BROKEN HILL PROJECT<sup>6</sup>**



Source: CCZ geology team and Geological Survey NSW

**Microscopy: confirms PI2 unit present at Broken Hill project**

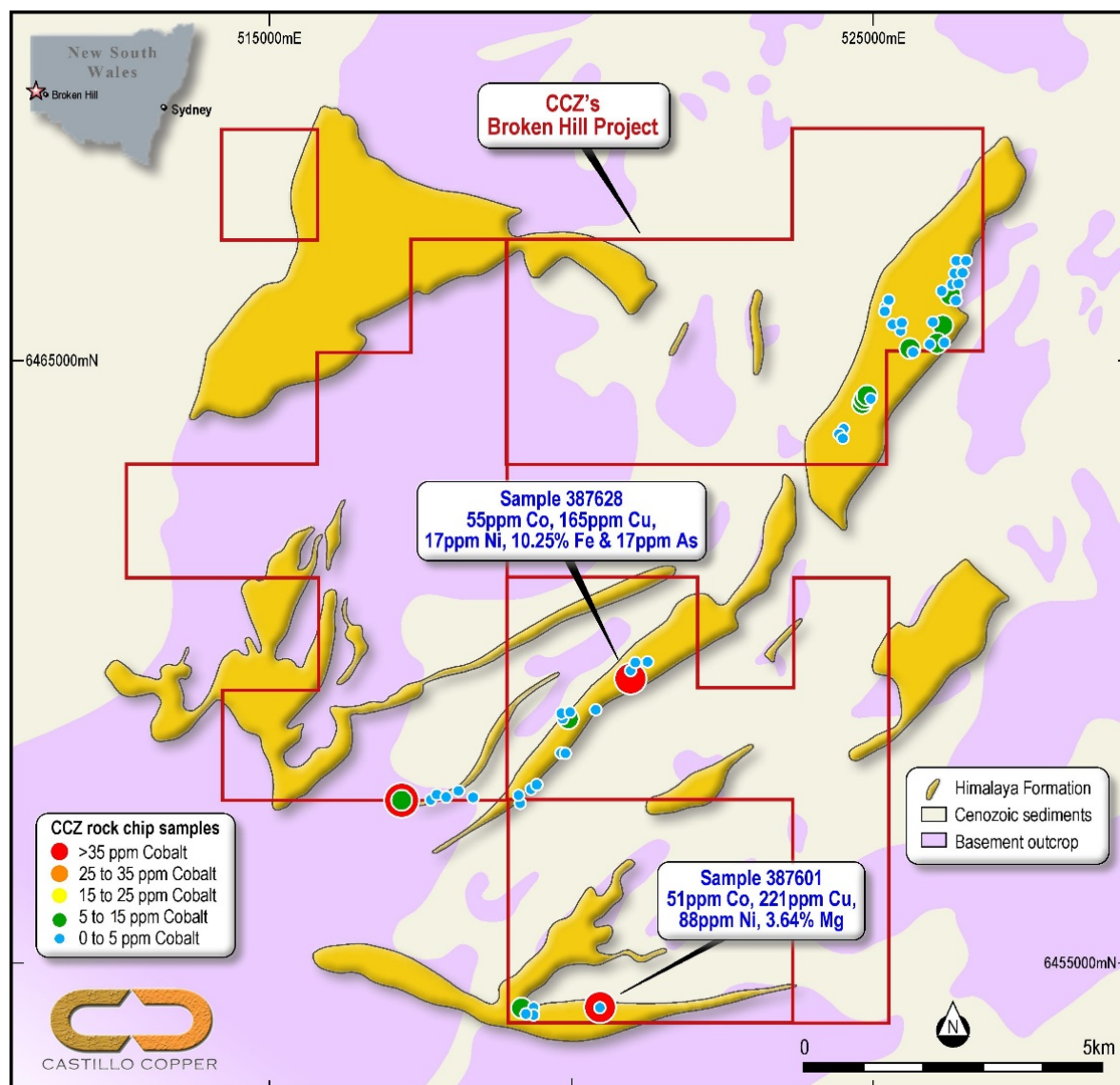
To deliver further empirical evidence the PI2 unit is present within the Himalaya Formation at the Broken Hill tenure, CCZ's geology team reviewed historic samples via thin section analysis under a powerful microscope.

Specifically, samples were obtained from Geological Survey NSW, which came from the highly prospective "Area 1" (Figure 8) within the tenure and COB's Big Hill deposit<sup>1</sup>. In turn, the team was able to correlate the mineralogy of the "Area 1" sample to the known mineralisation at COB's Big Hill deposit, thereby definitively proving the geology sequences to be comparable.

## Rock-chip sampling results

Assay results for rock-chip samples taken from key target areas (Figure 11) during the field trip were positive for cobalt mineralisation over the Himalaya Formation. Several samples contained >50ppm Co which is significant, given the weathered nature of the rock units; the median value was 21ppm Co.

**FIGURE 11: SAMPLE LOCATIONS WITH KEY ASSAYS OF INTEREST<sup>6</sup>**

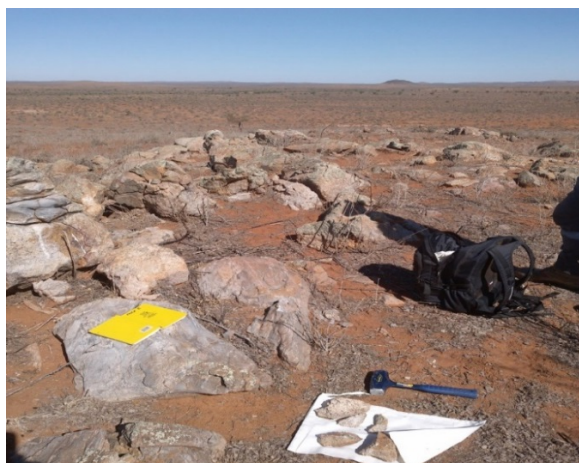


Source: CCZ geology team & Geological Survey NSW

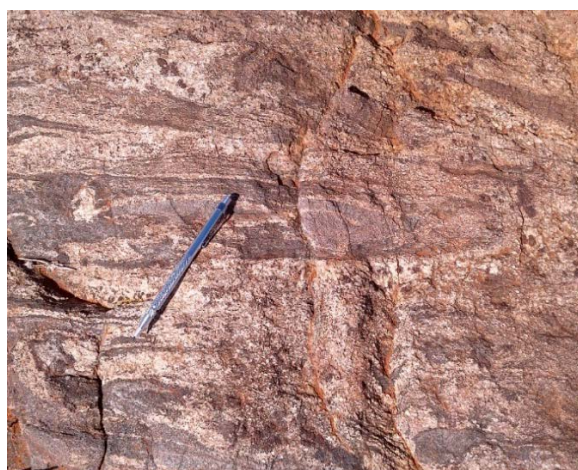
## Field trip discovery

Following a field trip, the geology team evaluated over half the high priority targets prospective for cobalt mineralisation, with another visit planned soon to complete the task. Using images from Geological Survey NSW, the team mapped/photographed Himalaya Formation outcrops within the project area (Figure 12) known as PI1 unit.

## FIGURE 12: OUTCROPPING OF QUARTZ-ALBITE-BIOTITE GNEISS @ CCZ'S PROJECT<sup>6</sup>



Location: 524834E 6464262N



Location: 525572E 6465146N

Note 1: P11 unit comprises plagioclase + quartz +/- K-feldspar +/- biotite rock and is "leucocratic, fine to coarse grained, saccharoidal textured, massive to moderately well bedded; bedding thin, planar, continuous; local weakly defined biotite schistosity; plagioclase is albite/oligoclase; pegmatite <20% of unit."

Source: Geological Survey NSW

### QLD PROJECTS

CCZ continued to progress with the application and grant process of the QLD tenements acquired.

Subsequent to the end of the quarter, on 25 July 2018, CCZ announced it and A-Cap Resources ("A-Cap", ASX: ACB) signed a binding Term Sheet to form a joint-venture to explore the highly prospective Ni-Co Marlborough project, near Rockhampton in north-east Queensland (QLD). With A-Cap agreeing to invest \$2.25m over two years to fund exploration activities – up to completing the bankable feasibility study stage – to earn 60% interest in the Marlborough project, with CCZ free-carried with 40%.

### CHILEAN COPPER PROJECTS

CCZ did not perform any material exploration work on these projects.

### CORPORATE

On 10 May 2018, Castillo received shareholder approval, to issue the following options, to acquire CCZ shares, to directors at an exercise price of \$0.10 and expiring on 31 December 2023:

- Mr Peter Meagher – 5 million, as part of his remuneration package;
- Mr Alan Armstrong – 1 million, to further incentivise; and
- Mr Neil Hutchison – 1 million, to further incentivise.

In addition, Castillo received shareholder approval for the issue of 8 million options to Hartleys Limited, and or their nominees, who were appointed as corporate advisor and 2 million options to consultants, and or their nominees, in lieu of fees, to acquire CCZ shares, at an exercise price of \$0.10 and expiring on 31 December 2023.

Furthermore, the Company applied to, and obtained orders from, the Federal Court of Australia, dated 13 April 2018, which extended the time for the giving of cleansing notices required under section 708A of the *Corporations Act* (the Act) in respect two recent issues of shares in the Company (in October 2017 and January 2018 respectively). The effect of those orders is that the issue of the relevant shares and any subsequent on-sale of those shares is “cleansed” for the purposes of the Act.

For and on behalf of Castillo Copper

**Alan Armstrong**

**Executive Director**

#### **COMPETENT PERSON STATEMENT**

The information in this document that relates to Exploration Results is based on, and fairly represents, information and supporting documentation prepared by Mr Peter Smith, BSc (Geophysics) (Sydney) AIG ASEG, who is a Member of The Australasian Institute of Geoscientists (AIG). Mr Smith has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the “Australasian Code for Reporting of Mineral Resources and Ore Reserves” (JORC Code). Mr Smith has approved and consented to the inclusion in this document of the matters based on his information in the form and context in which it appears.

The Australian Securities Exchange has not reviewed and does not accept responsibility for the accuracy or adequacy of this release.

#### **ABOUT CASTILLO COPPER**

Castillo Copper Limited (ASX: CCZ) is an ASX-listed base metal explorer that's flagship project is the historic Cangai Copper Mine near Grafton in northeast NSW. The project comprises a volcanogenic massive sulphide ore deposit, with one of Australia's highest grade JORC compliant Inferred Resources for copper: 3.2Mt @ 3.35% (6 September 2017). In terms of contained metal, the Inferred Resource is 107,600t Cu, 11,900t Zn, 2.1Moz Ag and 82,900 Moz Au. A notable positive is the presence of supergene ore with up to 35% copper and 10% zinc which is ideal feedstock for direct shipping ore. Incrementally, the project holds five historic stock piles of high-grade ore located near Cangai Copper Mine.

In brief, CCZ's Australian assets are 100% owned and comprise four tenure groups detailed briefly as follows:

- **NSW assets:** Consists of two projects: 1) Cangai Copper and Cobalt, which includes the Cangai Copper Mine, is in an area highly prospective for copper-cobalt-zinc and made up of three tenements; and, 2) Broken Hill which consists of two contiguous tenements prospective for cobalt-zinc that are located within a 20km radius of Broken Hill and just north of Cobalt Blue's ground (ASX: COB).
- **Queensland assets:** Comprises two projects: 1) Mt Oxide made up of three prospects (two are contiguous) in the Mt Isa region, northwest Queensland, and are well known for copper-cobalt systems; and, 2) Marlborough which includes three prospects located north-west of Gladstone (adjacent to Queensland Nickel mining leases) in an area with proven high-grade cobalt-nickel systems.

Finally, CCZ' holds six exploration concessions in Chile.

#### **REFERENCE LIST from ASX Announcements:**

- 1) CCZ ASX Announcement dated 18 June 2018
- 2) CCZ ASX Announcement dated 13 July 2018
- 3) CCZ ASX Announcement dated 17 May 2018
- 4) CCZ ASX Announcement dated 19 April 2018
- 5) CZN ASX Announcement dated 16 June 2016
- 6) CCZ ASX Announcement dated 27 June 2017
- 7) COB ASX Announcement dated 19 March 2017
- 8) CCZ ASX Announcement dated 19 March 2018

## APPENDIX 1: INTEREST IN MINING TENEMENTS HELD

<b>JACKADERRY</b>		
New England Orogen in NSW		
Tenement ID	Ownership at end of Quarter	Change during the Quarter
EL8635	100%	-
EL8625	100%	-
EL8601	100%	-

<b>BROKEN HILL</b>		
located within a 20km radius of Broken Hill, NSW		
Tenement ID	Ownership at end of Quarter	Change during the Quarter
EL8599	100%	-
EL8572	100%	-

<b>MT OXIDE</b>		
Mt Isa region, northwest Queensland		
Tenement ID	Ownership at end of Quarter	Change during the Quarter
EPM 26513	0%	-
EPM 26525	100%	Granted
EPM 26574	100%	Granted
EPM 26462	100%	-

<b>MARLBOROUGH</b>		
North-west of Gladstone		
Tenement ID	Ownership at end of Quarter	Change during the Quarter
EPM 26522	0%	-
EPM 26528	100%	Granted
EPM 26541	100%	-

<b>HUANTA (VICUÑA)</b>		
Chile		
Tenement ID	Ownership at end of Quarter	Change during the Quarter
04015-7483-7	100%	-
04015-7484-5	100%	-
04015-7486-1	100%	-
04015-7487-K	100%	-
04015-7488-8	100%	-
04015-7489-6	100%	-

**Note:** Castillo Copper Limited has a 100% interest in properties owned by Castillo Copper Chile SpA. They were originally granted in 2011, and inscribed as El Profeta 1 to 5, Pachi 1 to 3, Camila 1 to 9 and Homero 1 to 2.

## APPENDIX 2: SUMMARY OF EXPLORATION EXPENDITURE INCURRED PER PROJECT

Project	Quarter Cash Spend \$A'000
Jackaderry	862
Broken Hill	56
Mt Oxide North	9
Marlborough	2
Huanta (Vicuna)	1
<b>Total</b>	<b>930</b>